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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/536,315	03/27/2000	Eiji Ogawa	Q55898	4621

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EXAMINER
HARTMAN JR, RONALD D

ART UNIT	PAPER NUMBER
2121	11

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PR4

Office Action Summary	Application No.	Applicant(s)	
	09/536,315	OGAWA, EIJI	
	Examiner	Art Unit	
	Ronald D Hartman Jr.	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 May 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Claims 1-25 are presented for examination.

Claim Objections

2. Claims 1, 3 and 14 are objected to because of the following informalities:

Claim 1, line 4, change "having" to "holding".

Claim 3, line 5, delete "of" in "all of histories".

Claim 14, line 6, change "strong" to "storing".

Claim 14, line 1, add "," in between "system" and "for".

Claim 14, line 3, delete "said".

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily

published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-4, 11-12, 14-16, 18 and 24-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Friz, et al., U.S. Patent No. 5,786,994.

As per claims 1, 3, 14-15 and 18, Friz teaches a monitoring system comprising:

- a plurality of medical image input devices (taught as multiple laser imagers, Fig 1 element 14; laser imagers receive image information and therefore are viewed to be an image input device) having a historical evaluation information regarding image quality (taught as the laser imager's ability to use its processor to automatically execute an image quality control program whereby the laser imager periodically tests the laser imager to determine if characteristics of the laser imager are acceptable, this results from the testing being stored within the memory contained in each laser imager, C7 L43- C8 L7);
- a network onto which the plurality of medical image input devices are connected (Figure 3 element 48 and C11 L22-25).
- a control device (Figure 3 element 46 or element 16) which stores (Figure 3 element 50 or element 18) all of the historical evaluation information for the medical image input devices so as to control the histories centrally (taught as the ability of Friz to collect all of the historical evaluation information and presenting possible modifications, to a person at the laser imager, that should be

implemented with respect to the laser imager in order to adequately maintain the desired high quality images).

5. As per claims 2 and 4, Friz teaches the use of a medical diagnosis apparatus (the combination of elements 12 and 14 from Figure 1) wherein the medical diagnosis apparatus comprises at least one medical image output device (Figure 1 element 12 and C6 L59 – C7 L4).

6. As per claims 11-12 and 16, Friz teaches that a medical image input device (laser imager) is a control device through implementation of the processor (Figure 1 element 16) and the use of its memory (Figure 1 element 18).

7. As per claims 24-25, Friz teaches a CR imaging system (C1 L11-23).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 5, 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz, as applied to claims 1 and 3 above, further in view of Hoebel et al., U.S Patent No. 5,400,792.

As per claims 5, 7 and 13, Friz does not specifically teach the medical image input devices having historical image quality results and this evaluation information being controlled from a central location.

Hoebel teaches a medical image input device, such as the disclosed angiography apparatus (Figure 1 element 1) having historical image quality results (obvious over the disclosed image archive, C3 L9-11) that are monitored by a central control device (Figure 1 element 6) to monitor and control the medical input device in order to achieve the optimum image quality (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have allowed Friz's disclosed system to implement using the features as disclosed by Hoebel since it would afford Friz a more effective way of keeping track of the operations of the system, thereby increasing the desired image quality. That is, since Friz teaches the use of testing information for medical image input devices, wherein the testing information is stored within the medical input device for later use or analysis, a feature wherein the testing information is also maintained and stored within an medical image output device would have been obvious to one of ordinary skill in the art at the time the invention was made since it would allow for the system to effectively determine pertinent parameters with respect to all of the devices which inevitably contribute to the quality of the images produced, thereby allowing for an operator or a central control device to effectively control the devices or offer recommended services to the devices for the purpose of achieving an optimum image

quality with respect to the devices, both input and output, that are associated with a medical imaging system.

10. Claims 9-10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz, as applied to claims 1 and 3 above, in view of Eastvold et al., U.S Patent No. 6,487,513.

11. As per claims 9-10 and 17, Friz does not specifically teach a portable testing unit for testing the image quality of the medical devices.

Eastvold teaches a portable testing unit for testing the image quality of the medical devices (Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have allowed Friz's disclosed system the ability to incorporate the teachings of Eastvold, thereby allowing for the medical devices to be serviced or tested at the location of the devices. This feature would allow for an operator to either test the medical device at the location where it is located, or remotely through the use of a network and this increased testing flexibility would only add to the desired intentions of Friz's disclosed system, that is, to effectively determine and automatically adjusts image characteristics based on test results so that image quality may be optimized through implementation of periodically monitoring and changing control parameters that affect the image itself.

12. Claims 6, 8 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz, as applied to claims 1, 3, 14-15 and 18 above.

13. As per claims 6 and 8, Official Notice is taken with respect to a soft copy display device. As the applicant has stated within the specification, the soft copy display device is merely a LCD or CRT and since the use of both of these display devices is well known in the art of medical imaging systems, their incorporation would have been obvious to one of ordinary skill in the art at the time the invention was made since it would allow for an obvious way for an operator to actually view the images that are generated from the angiography apparatus.

14. As per claims 19-23, Official Notice is taken with respect to image quality being derived from the sensitivity or the granularity of the image. That is, since image quality is monitored and controlled in the system as disclosed by Friz, and since image quality characteristics such as the granularity or sensitivity of an image is an obvious variation of Friz's disclosed system and its ability to control the density of an image, the use of a specific characteristic such as the granularity or sensitivity of the image is believed to be a variation that would have been obvious to one of ordinary skill in the art at the time the invention was made since it would allow for Friz's disclosed system to manage other characteristics of the image, all of which are believed to be characteristics that are obvious to the density of an image since the density, in essence, is a feature that defines that clarity or quality of the image.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D. Hartman Jr. whose telephone number is (703) 308-7001. The examiner can normally be reached Monday-Friday, 11:30 am – 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee, can be reached at (703) 305-8498. The fax number for this examiner is (703) 746-5408.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9618.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 746-7239, (for formal communications intended for entry)

Or:

(703) 746-7240, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Ronald D. Hartman Jr.
Patent Examiner
Art Unit 2121
May 14, 2003

Ramesh Patel 5/16/03
RAMESH PATEL
PRIMARY EXAMINER
for John Follansbee